Yes, you can.®

Invacare® **Shark II/SPJ+**

Remote

User manual

CE

How can you get in touch with Invacare®?

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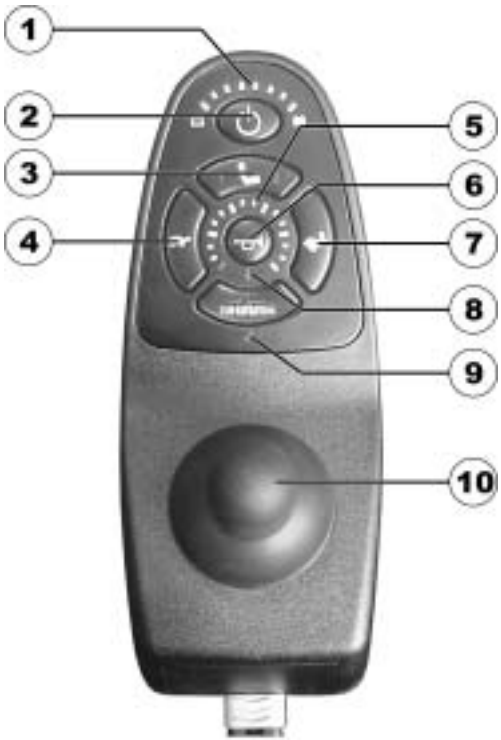
1 The Shark II/SPJ+ Remote

1.1 Assembly of the remote

Top side (standard)

1) Battery charging display
2) ON/OFF button
3) Activate / connect through / deactivate adjusting mode (not available for all models)
4) Reduce travel speed
5) Travel speed display
6) Horn
7) Increase travel speed
8) LED for “control unit activated for accompanying person“
9) Status display
10) Joystick



Top side - including light option (not available for all models)

11) Warning indicator
12) Left hand indicator
13) Light
14) Right hand indicator
15) LED for “light activated“

Lower side

1) Combined charging socket / programming socket

1.2 Battery charging display

- All diodes illuminated: **full range!**
- Only the yellow and red diodes are illuminated:
  Reduced range! Charge batteries before a longer trip!
- Only the red diodes are illuminated:
  Very low range! Charge batteries as soon as possible!
- Only one red diode flashing:
  Battery on reserve = Charge batteries immediately!

Battery charging display

INFORMATION
Protection against total discharge: after a certain journey time with the battery on reserve the electronic system will automatically shut down actuation and the wheelchair will come to a stop. Total discharge reduces the service life of the batteries considerably.

PLEASE NOTE: Danger of battery destruction! After a certain journey time with the battery on reserve the electronic system will automatically shut down actuation and the wheelchair will come to a stop. By waiting a few minutes the batteries can 'recover' to such a degree that the electronic system can be switched on again. Short continuation of the journey is possible until the wheelchair comes to a stop again. If this procedure is repeated several times the batteries will be destroyed!

- *Please always ensure that the batteries are charged sufficiently for the planned journey.*
- *If possible, do not drive until the batteries are empty.*

1.3 Adjusting speed

The user can adjust the chair's top speed to suit their preferences and environment. The currently selected top speed is shown on the Speedometer and can be adjusted using the "Increase Speed" (2) and "Reduce Speed" (1) buttons.

1.4 Using the speedometer

Each of the speedometer's 6 large LEDs typically represent 0%, 20%, 40%, 60%, 80% and 100% of the chair's maximum speed.

The Speedometer is used to gauge the relative speed of the chair in comparison to the maximum speed possible. The right-most LED indicates current maximum speed, which can be adjusted using the Increase (Decrease) Speed button.

If the bottom, left-most GREEN LED is flashing SHARK is in SPEED LIMIT mode, which limits the drive speed to a pre-programmed value, typically when a seat is raised or tilted and driving too fast may be dangerous.

1.5 “5 Speed” and “VSP” modes

Shark II supports 2 modes of top speed adjustment – “5 Speed” and “VSP” modes.

In the “5 Speed” mode pressing the Increase Speed and Decrease Speed buttons steps between one of the 5 top speeds 20% to 100%.

In the “VSP” mode a quick single press of the Increase Speed and Decrease Speed buttons also steps between one of the 5 speeds 20% to 100%. However, pressing and holding the Increase Speed (Decrease Speed) Button ramps the top Speed up (down) in fine steps, allowing practically any top speed to be selected. This can be particularly useful for matching the chair speed to the walking speed of an accompanying pedestrian.

VSP is an extremely powerful feature, allowing both fast stepping between fixed top speeds by using quick presses or finer control using long presses. The VSP feature can be enabled or disabled. Users can toggle between the “VSP” and “5 Speed” Modes by holding down both the Increase Speed and Decrease Speed Buttons for approximately 2 seconds while the unit is powered up. The control unit will beep when the mode has been changed.

1.6 Status display

The status display serves to display error messages. For error codes see chapter "**Error Codes and Diagnostic Codes**" on page **18**.

1.7 Activate/de-activate the immobiliser

Activate the immobiliser

- Whilst the remote is switched on, press and hold the ON/OFF button (1) for 4 seconds. The remote will switch off immediately. After 4 seconds the battery charging display will illuminate briefly and the horn will be heard twice. The immobiliser is activated.

Activate

De-activate the immobiliser

- Whilst the immobiliser is activated, switch on the remote using the ON/OFF button (1). The diodes of the battery charging display will illuminate briefly once from left to right. A slow countdown will then be displayed from right to left.
- Press the horn button (2) twice before the countdown is completed. You have about 10 seconds to do this. The immobiliser is de-activated.

Deactivate

1.8 Using the remote to control the wheelchair

- Switch on the remote (ON/OFF button). The displays on the remote will illuminate. The wheelchair is ready to start.
- Set the travel speed (buttons for adjusting travel speed - see section on **"Assembly of the remote"** on page **6**).

Can the electronic system programming be adapted?
The electronic controller is programmed with standard values during manufacture. Your Invacare® dealer can carry out programming tailored to fit your requirements.

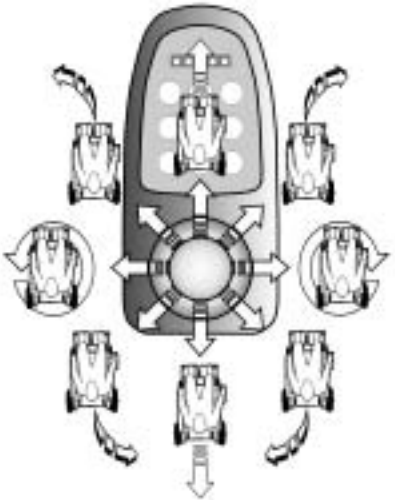
WARNING: Any alteration to the drive programme can influence vehicle handling and the tipping stability of the electric vehicle!

- *Alterations to the drive programme may only be carried out by trained Invacare® dealers!*
- *Invacare® supplies all electric vehicles from the factory with a standard drive programme. Invacare® can only assume a warranty for the safe vehicle handling of the electric vehicle – in particular tipping stability - for this standard drive programme!*

Will the wheelchair not drive after switching on?
Check the drive-away lock (see chapter **"Activate/de-activate the immobiliser "** on page **11**) and the status bar indicator (see chapter **"Battery charging display"** on page **8**.).

1.8.1 How a wheelchair with "Indirect Steering" reacts to joystick movements.

"Indirect Steering" occurs by individually applying power to the drive wheels, and is found on wheelchairs with front, rear and middle wheel drive.



Travel direction

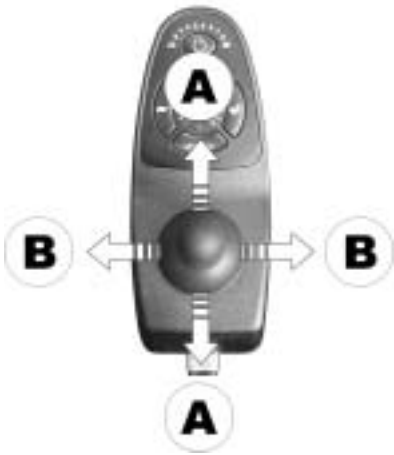
The further the joystick is moved in a particular direction, the more dynamically the wheelchair reacts.

Note:
To brake quickly, simply let go of the joystick. It will then automatically return to the middle position. The wheelchair will brake.

1.8.2 Operating the electric adjustment options (not available for all models)

Electric adjustment options are operated using the joystick.

- Press the adjustment mode button once in order to activate the first adjustment option. Press the adjustment mode button twice in order to activate the second adjustment option.
- Move the joystick to the left or right = change adjustment option (B).
- Move the joystick forward or backward = operate selected adjustment option (A). How far the joystick is moved in any direction determines the motion speed of the actuator.
- Press the adjustment mode button in order to return to drive mode.



1.9 Control unit for an accompanying person (option - not available for all models)

The control unit for an accompanying person enables the control of the wheelchair to be handled by an accompanying person.

1.9.1 Layout of the remote

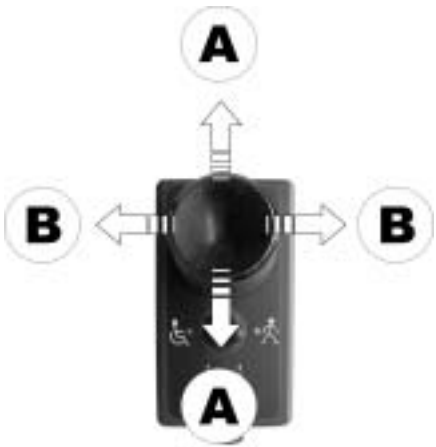
1) Joystick
2) Change over control unit to accompanying person/occupant
3) Activate/connect through/deactive adjustment mode
4) Set travel speed

1.9.2 Operating the electric adjustment options

Electric adjustment options are operated by means of the joystick.

The control unit must be switched over to ’accompanying person’ for the adjustment options to be operated via the control unit for the accompanying person.

- Press the adjustment mode button. Adjustment mode is activated.
- Move the joystick forward or backward = Operate adjustment option (A).
- Move the joystick to the left or right = Change adjustment option (B).
- Press the adjustment mode button again to return to drive mode.



1.10 Error diagnosis

If the electronic system shows a failure, please use the following guide to locate the fault.

NOTE:
Ensure that the drive electronics system is switched on before starting any diagnosis.

If the status display is OFF:
Check whether the drive electronics system is SWITCHED ON.
Check whether all cables are correctly connected.
Ensure that the batteries are not discharged.

If the battery charge display diodes are FLASHING:
Count the number of flashes and then proceed to the next section.

1.11 Error Codes and Diagnostic Codes

FLASH CODE	FAULT	EFFECT	Comments
1	User error or drive motors overloaded	Stops driving	• Ensure that the joystick is in the neutral central position (simply release the joystick) and switch on again. • Drive motors overloaded. Shut electronics down and then switch on again. If the driving power is still reduced, wait a few minutes.
2	Battery error	Stops driving	• Check battery and supply cable. • Charge batteries. If you switch the wheelchair off for a few minutes, the batteries can often recharge to such an extent that a short run is still possible. However, you should only do this in an emergency, as this causes the batteries to discharge excessively. • Replace batteries
3	Fault on left-hand motor (M2)	Stops driving	• Check motor cable and connecting plugs. • Check motor.
4	Fault on right-hand motor (M1)	Stops driving	• Check motor cable and connecting plugs. • Check motor.
5	Error on left-hand (M2) wheel lock	Stops driving	• Check cable and connecting plugs. • Check brake.
6	Error on right-hand (M1) wheel lock	Stops driving	• Check cable and connecting plugs. • Check brake.

FLASH CODE	FAULT	EFFECT	Comments
7	Error in Shark remote	Stops driving	• Check remote bus cable and all connecting plugs. • Replace remote.
8	Error in Shark power module	Stops driving	• Check all cables and connecting plugs in the Shark system. • Replace power module
9	Communication error in Shark system	Stops driving	• Check all cables and connecting plugs in the Shark system. • Replace remote.
10	Unknown error	Varying	• Check all cables and connecting plugs. • Talk to your dealer.
11	Incompatible remote	Stops driving	• The wrong remote type is connected. Ensure that the power module type code matches the remote type code.

Order No. of this Manual: 1451356.DOC
Release Date: 2012-02-20

English